



SAFETY IN THE FIELD

GIFT Expedition to Iceland 2021

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The first priority for any fieldwork is personal safety. Safety is above our science goals. Fieldwork can be conducted safely if there is a culture of safety adopted by each individual. To achieve a safe culture, field team members need to abide by common principles.

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1 COVID-19 Plan

[Field leads updated the COVID-19 safety strategy repeatedly to reflect new knowledge and changing external circumstances. Key components included:

- Pre-trip preventative measures
- Commitment to adhere to FAA, CDC, TSA and DOT travel guidelines
- Commitment to adhere to local health and safety regulations
- Procedure for daily COVID self-assessments
- Procedure in case of a teammate developing COVID symptoms
- Procedure for pre-return-travel COVID testing]

2 Fieldwork Safety

[items 1-10 are summarized above]

11. Wear safety gear appropriate for the day's work. This always includes reflective vests and can include crampons, helmets, and gloves.
12. Work in groups of 2 or more. The easiest way to get lost is to be alone. Also, a relatively minor injury (e.g., sprained ankle) can become serious if no one knows where you are.
13. Always wear boots in the field. Tennis shoes, etc. are not recommended for fieldwork, as they do not provide adequate ankle support.
14. Stay out of precipitous areas. If you have doubts DON'T DO IT! The success of

the group depends on the safety of everyone.

15. When you have to climb steep slopes, be careful to avoid dislodging loose materials. A rolling rock can be extremely dangerous to the people below.
16. Avoid climbing directly above another person or group. If you must pass above them on a slope, always warn the people below of what you intend to do and wait until they get out of the way. If you dislodge a rock, yell, "ROCK!". If you are below, seek shelter.
17. Do not roll large boulders; there could be other people, out of sight down slope and a rapidly moving boulder can be fatal.
18. Do not drink water from streams in the field without filtering it first. Even apparently sparkling clear creek water may not be free of pathogenic organisms.
19. Be careful when crossing fences that you don't break them down (bad for the fence) or cut yourself on the barbed wire (bad for you). Also, ALWAYS leave gates as you find them. If they are open, leave them open. If they are closed, make sure they are closed after you pass through.
20. Always return to the trucks at the agreed upon time. If you get lost, walk only until dusk and stay together as a group. At dusk, find shelter, build a fire if you can, and stay put! Never try to walk out of the mountains at night. We have a search and rescue policy that will be explained in detail.
21. EVERY DAY you leave for the field be certain you have: (1) a raingear, (2) extra layers (3) plenty of water. If you have to spend a night in the mountains, these materials are critical.
22. Electrical storms pose a hazard in the field. If you are on top of a hill, especially an exposed hilltop, you should move down to a lower elevation, preferably a valley bottom, and "hunker down." Also be aware of flash floods and be ready to move to higher ground if streams begin to rise.
23. If you are caught in a rainstorm and you are in the field, you need to decide whether to continue to work or whether the rain is heavy and continuous enough to end your field day. Typically storms come and go quickly, so once you have hiked into your field area you should be extremely reluctant to hike out and sacrifice field time. Only you and your team lead can decide.
24. Deviations from the field plan should be discussed at the morning briefing. If you are in the field and need to stay later than the plan, someone must communicate the changes with the field lead. If they cannot be reached by radio or cellphone, send 2 team members (or one truck worth) back to camp to inform the lead of the change.
25. The Field Lead will communicate with local rangers daily.
 - a. [Local contact phone numbers]

3 Fieldwork Etiquette

1. Abide by the Code of Conduct at all times. NASA's anti harassment policy applies for the duration of the trip.
2. Conduct yourself in a respectful manner at all times. We are ambassadors of our field, institutions and countries. Future access to these field sites for any or all members of the group depends on relationships with locals. DO NOT jeopardize future work by conducting yourself foolishly. Always remember that we are guests.
3. Treat the landscape with respect. We are working in a National Park. If sampling is necessary, abide by the permit and sample in a non-obvious way, away from trails.
4. Rake tracks to obscure them when accessing off-trail areas. This discourages tourists from following our tracks into restricted areas that we have access too.
5. Our permit allows the use of UAS flights, as long as there are no visitors to the park nearby during the flight. Team leads are required to specifically inform the rangers about flights.
6. We must wear identification on our reflective vests at all times in the field. These will be provided.

4 Illness or Injury

Only the individuals involved can make a rational decision about their physical condition and whether or not they should seek medical help. Several courses of action are available:

Minor illnesses or injuries (colds, blisters, minor sprains, etc.)

You must decide whether to "tough it out" or to stay in camp for the day and recover. If you decide you can't go in the field, and feel up to "office work", discuss options with your group to come up with data processing jobs to be useful in camp.

Some injuries (e.g., twisted knees, sprained ankles, and the like) make it impossible for you to keep up with your team. In this case a decision must be made about whether one or two-days rest will get you back on your feet, whether you require medical attention, or whether you will be unable to continue with field work.

In general, treatment of minor injuries such as small cuts and blisters is the responsibility of the individual.

Serious illness or injury

If you need medical attention, every effort will be made to get you to a doctor as quickly as possible. It should be kept in mind that in some cases the nearest doctor could be 4 hours away and decisions to get medical help should not be postponed until it is clear that this trip is necessary. The preference is to err on the side of caution and safety, so if you have any reason to believe a trip to the doctor is needed, please do not hesitate to let your team lead and field lead know.

IN THE EVENT OF SERIOUS ILLNESS OR INJURY IN THE FIELD, THE FOLLOWING PROCEDURE SHOULD BE FOLLOWED:

If the injured person can move under their own power

1. Use a radio or cell phone to report the problem up the chain of command. Contact your team lead who will contact the field lead.
2. The entire team is to leave the field along the easiest route available and return to the trucks.
3. Return to camp safely. DO NOT SPEED
 - a. If communication was not possible before, try from camp
4. Report the injury to the Park Rangers stationed at the huts.

If the injured person is immobile

Important: If there is a suspicion of a back or neck injury, DO NOT ATTEMPT TO MOVE THEM

1. Use a radio or cellphone to call for emergency services, and follow their instructions
2. Designate a person to use a radio or cell phone to report the problem up the chain of command. Contact your team lead who will contact the field lead.
3. If communication is not possible, rely on your Wilderness First Responder Training and evaluate if an evacuation is necessary
 - a. If the person cannot / should not be moved, make them as comfortable and warm as possible. At least one person should remain with the victim.
 - b. Part of the group returns to camp safely (Again: DO NOT SPEED If you don't make it to camp you are no help to anyone).
 - c. Be sure you know exactly how to return to the injured person.
 - d. If communication was not possible before, try from camp
4. Report the injury to the Park Rangers stations at the huts

5 Search and Rescue (How to be Found)

1. People missing from camp an hour after the agreed upon time (see field plan) will be considered lost, activating a search
2. Deviations to the field plan should be discussed at the morning briefing. If you are in the field and need to stay later than the plan, someone must communicate the changes with the field lead. If they cannot be reached by radio or cellphone, send 2 team members (or one truck worth of people) back to camp to report the new plan.
3. If you become lost: stay calm
 - a. Find a safe place where you can stay dry, near a trail, stream, fence, or road if one is nearby (searches start using geographic features)
 - b. Stay together with your partner / team
 - c. Use something reflective or brightly colored to place a signal on a high point close to you that might be visible from far away
 - d. Continue to try and communicate (radio, whistle, shouts)
 - e. Know that help is coming

6 Operating Trucks

In general, the person listed on the rental will drive the field trucks. The driver is responsible for the safety of the passengers and the gear in it. For this reason, special efforts will be required to maintain safe driving habits. Reckless or inept driving cannot be tolerated and anyone exhibiting this behavior will be replaced immediately. In addition, passengers must not engage in any behavior that will unnecessarily distract the driver. For more detail on trucks, see **Expedition Driver Responsibilities and Strategies**.

1. At all times trucks are to be driven at reasonable speeds as dictated by time of day, road, weather, and traffic conditions, etc.
2. Consumption of alcoholic beverages within the vehicles, whether in motion or parked, is not allowed. It is each individual's responsibility to follow all local laws.
3. No one is permitted to operate a truck while intoxicated.
4. Trucks are to be kept neat and in good repair. (Throw out trash at each opportunity.) Report all mechanical problems immediately to the field lead and treat the vehicles with respect.
5. Collect all toll receipts, gas receipts, etc. for your own reimbursement.
6. No activity is permitted in the trucks that could interfere with, or infringe on, the rights of other passengers (see Code of Conduct).
7. The person to the right of the driver (co-pilot) is to stay awake and alert at all times. This person is the assistant driver and should handle radio communications, map

reading, tolls, etc., for the driver.

8. No driver is permitted to drive to the point of fatigue.
9. When traveling, all vehicles are to maintain a reasonable spacing--do not lag behind--do not tailgate. Except under emergency conditions, no truck should pass another vehicle in the caravan. If you want to report a problem, use the radio. If it is inoperative, flash your headlights until the caravan pulls over.
10. It is the driver's responsibility to check oil, water, tires, etc. at each gas stop. Report mechanical issues or suspicions to the Truck Quartermaster ASAP.
11. ALWAYS be sure you are filling the truck with the proper fuel: diesel or gas.
12. The radios are for business communications. Keep the channel clear incase there is a change in plans or an emergency that needs to be communicated.
13. We will be fording rivers in our trucks. When doing so, follow the tips in the **Expedition Driver Responsibilities and Strategies** document. Do not attempt to cross a river before you know how deep it is, or before you are confident your truck can make it. Remember that rivers are glacial fed and usually lowest in the morning.
14. The trucks need to carry printed logos identifying our group while working in the park. These will be provided.

7 Camp

We are living with each other for nearly 3 weeks. Make a concerted effort, over and above what is normal for office days, to be a supportive and helpful member of camp.

1. We are sharing resources (generators, equipment, cookware, trucks) in camp. All of which must be treated with respect. If you notice a mess, please clean it up. If you make a mess, please clean it up yourself.
2. We are sharing camp with tourists. Be respectful of their desire for a remote vacation and keep voices low. (Also, feel free to engage them and tell them about our work)
3. There is a rotation for cooking/cleanup. Please allow space for the cook to cook or offer to help. The clean-up person is responsible for cleaning the pots and pans on the day they are assigned, but offer to help if you have time. Everyone is responsible for cleaning their own eating dishes.
4. The generators will be turned off at 22 00 (at the latest) each day.

Be safe and do good work, we will have a great time.

8 Emergency Numbers

[Internationally accessible phone number for field lead]

[Phone numbers of key local contacts]

[Local emergency services phone number]

[Phone number of logistics lead/a stateside contact person for the team]